

## New Look *Folio* Debuts 30 March

Beginning 30 March, *Folio* will have a different appearance. The changes are these:

- To save on postage costs, the page length will be shortened by 3/4" to 11".
- Headlines will, in the main, use lower case letters.
- Articles will follow the points of style set out in the new University of Alberta Style Guide. (The major areas dealt with in the Guide are conventions regarding capitalization and spelling, and problems of language bias.)
- The back page may be reserved for articles, photographs, listing of events, etc., with display advertisements moving inside.

### Watch for 'Spectrum'

30 March is also notable because of the launching of "Spectrum," a new, easy-to-read, four-page, illustrated publication about interesting research in progress at our University.

Designed to be a supplement to *Folio*, "Spectrum" will help keep readers informed about the variety and quality of research that's being carried out on campus.

The eight to 12 stories in each issue will tell you about projects going on in many different fields. The humanities, social sciences and the arts will be covered, as well as medicine, science and engineering.

As "Spectrum" is intended for a wide lay audience, the style will be nontechnical and free of jargon.

"Spectrum" is produced, edited and designed by the Office of Public Affairs, and is sponsored by the offices of the Vice-President (Research) and Research Services.

### Advertising Rates to Rise

What about advertising, you ask? On 1 May 1989 the rate for both display and classified ads will increase by 15 percent. For display ads, the cost will be \$40 (one unit), \$80 (two units), \$100 (quarter page), \$200 (half page), and \$400 (full page). Classified ads will cost 35 cents per word.

Also effective 1 May 1989, the (display advertising) discount for University departments and offices will be 25 percent. □

### Easter Deadline

By Good Friday (24 March) and Easter Monday (27 March) into account, the deadline day for the 30 March issue of *Folio* is Wednesday, 22 March. Specific times are 9 a.m. for all copy and 3 p.m. for display and classified advertisements. □

University of Alberta

# FOLIO

University of Alberta

16 March 1989



Dr. James and his group are homing in on a treatment for high blood pressure.

## Kebarle, Orrell Selected to Receive Kaplan Awards

Paul Kebarle (Chemistry) and John Orrell (English) are the winners of the 1989 J. Gordin Kaplan Awards for Excellence in Research.

Awards Night has been set for Monday, 3 April, at 8 p.m. in SUB Theatre. The lectures by the laureates will be followed by a public reception, as in preceding years.

Dr. Kebarle will speak on "Ions in the Gas Phase - Ions in Solution. How the Two Fields Were Bridged: Implications and Applications."

Dr. Orrell's lecture is titled "The Quest for Shakespeare's Globe."

Profiles of Drs. Kebarle and Orrell will appear in *Folio* soon. □

## Moving Closer to Preventing High Blood Pressure

University of Alberta scientists are the first in the world to discover the structure of the enzyme that starts processes that cause high blood pressure. The discovery of the crystal structure of this enzyme, renin, brings scientists one major step closer to preventing high blood pressure.

Michael James (Biochemistry) headed the group of scientists who discovered how the 340 amino acids in renin conform to one another. Now Dr. James and his group are at work examining how inhibitor molecules bind to renin. Development of a successful renin inhibitor could lead to an effective treatment for high blood pressure. This would represent a major therapeutic advance for the 2 million Canadians and nearly 60 million Americans who suffer from high blood pressure.

Powerful x-ray crystallographic techniques enabled Dr. James and his colleagues to discover the crystal structure of renin. X-ray

crystallography enables scientists to compute a clear image of the crystal under investigation.

Dr. James and his collaborators used human renin produced by California Biotechnology (Cal Bio), headquartered in Mountain View, California. Cal Bio were the first to produce human renin using techniques of recombinant DNA technology, a development that enabled Cal Bio to produce the first quantities of renin sufficient to permit research into its structure.

California Biotechnology Inc. is a biopharmaceutical company engaged in the development of human therapeutics and protein drug delivery systems. These products are being commercially developed by the company or through collaboration with major pharmaceutical companies. Cal Bio and Wyeth-Ayerst Laboratories, a unit of American Home Products Corporation, are conducting joint development of renin inhibitors, and Wyeth will market any

resulting products under an exclusive world-wide licence.

Dr. James' research has, in addition to major support from Cal Bio, also been funded by the Alberta Heritage Foundation for Medical Research and the Medical Research Council of Canada. □

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- Profile: Fund Development's Jean Adams



*Folio*, 16 March 1989

Rochet, Kumar the Recipients

## MRC Awards First Grants to Faculty of Rehabilitation Medicine

Anne Rochet and Shrawan Kumar, both of the Faculty of Rehabilitation Medicine, have been awarded that Faculty's first two grants from the Medical Research Council of Canada. Martha Piper, Dean of Rehabilitation Medicine, says, "This is a landmark for the Faculty. We're very excited."

MRC funded no research in the area of rehabilitation medicine until 1985, and Dean Piper estimates that fewer than 10 such grants have been awarded in the country since then.

The Dean is confident that these two grants are the first of many. "The MRC will come to see the U of A Rehab Medicine Faculty as one of its strong contributors."

The \$58,000 grant awarded to Dr. Rochet (Speech Pathology and Audiology) will support a three-year study comparing two approaches to facial muscle retraining in people who have experienced paralysis on one side of the face as a result of nerve damage.

One approach uses a series of

specific exercises visually monitoring progress in a mirror. In the other approach, electromyography (EMG) electrodes on the surface of the skin pick up and amplify muscular movement that is not externally visible. This extra-sensory feedback is particularly important for people with minimal nerve regrowth, whose progress is more difficult to detect and direct.

Until now, no research has systematically examined the effect of one treatment versus the other, or compared the effects of using them singly or in combination. Dr. Rochet's study will offer an important first step toward the development of a formula for clinicians to use in setting up treatment protocols for patients with various kinds of injuries and recovery patterns.

Other investigators involved with the project will be Sharon Warren (Rehabilitation Medicine), Richard Stein (Physiology, Neurosciences), and George Elleker (Neurology, U of A Hospitals).

Treatment efficacy also is the subject of Dr. Kumar's research project. His \$110,000 grant will fund a two-year investigation of the role of intra-abdominal pressure in relation to the mechanics of the human back.

Dr. Kumar is among the researchers who have contributed to the widely-held theory that lower back pain can be prevented and treated by strengthening abdominal muscles. More recent research has called that theory into question, although evidence remains inconclusive. Dr. Kumar's study is expected to settle the question.

Dr. Kumar will measure the involvement of abdominal muscles while applying a load to the spine under a variety of conditions, such as unexpected or prolonged loading. Such comparisons have not been done in previous research, and Dr. Kumar expects that they will clarify whether intra-abdominal pressure is related to the mechanics of the back, and if so whether it is a reflex or has a useful function. "If it happens to be an important component, then of course we have been right all along. But if it isn't, then we shouldn't perpetuate the mistake we have made before." □



Anne Rochet



Shrawan Kumar

## FOLIO

Volume Twenty-six  
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Public Affairs produces *Folio*  
on a regular basis for the  
staff and other interested  
persons.



University  
of  
Alberta

### Deadlines:

**Notice of coming events:** 9 a.m.  
three weeks in advance of desired  
publication date.

**Classified advertisements:** 3 p.m.  
one week in advance of desired  
publication date. This date also  
serves as the deadline for  
cancellation of advertisements.  
Advertisements cost 30 cents per  
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subsequent insertions. There is a  
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minimum charge of \$1.50.  
Contributors' corrections will be  
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which an insertion is made.  
Advertisements cannot be accepted  
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advertisements must be paid for in  
full at the time of their submission.  
**Display advertisements:** 3 p.m. one  
week in advance of desired  
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Affairs for sizes, rates and other  
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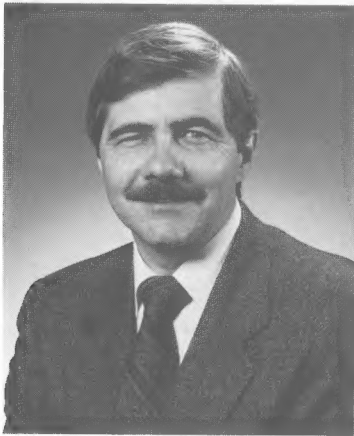
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## The New Deans

A subscriber to the half-a-loaf-is-better-than-none idea, *Folio* (9 March) carried articles on the appointments of Dean Louis Malouin (Business) and Dean Norman Wood (Dentistry). Photos were not available then, but they are now so . . .



Jean-Louis Malouin



Norman Wood

## The Role of The Professor as Teacher

"Most students are totally intimidated entering this University," said Charles Vethan, Students' Union Vice-President (Academic), the first of five speakers to address Senate members on the subject, "The Professor as Teacher" at Senate's March meeting.

"Most first-year students feel isolated and lost in huge classes," Mr. Vethan continued. They don't recognize soon enough the vital difference between the teaching environment of high school and the learning environment of university. They don't understand the difference between a teacher and a professor; and they don't know about research.

An appreciation of the very different academic environment would be hastened, he suggested, if professors discussed their research with first-year classes and encouraged critical and analytical thought so that the transfer from a teaching to a learning environment could be made in the first term.

Discussing the qualities needed in professors, John Bertie (Chemistry, and President, AAS:UA) described a professor as "someone who can turn a building into a University: a creative scholar who can teach well, who can do the research necessary to expand their subject and who is able to teach graduate students how to do that."

But to do the research, professors must attract money to buy equipment and to pay the

post-doctoral fellows they have attracted to work with them. Dr. Bertie estimated that he needs around \$40,000 annually for salaries for his research assistants, and \$250,000 every 10 years for modest equipment replacement.

"Competition for grant funds is intense," he lamented. "What is necessary to keep the research going detracts from undergraduate teaching." But the University's reputation (built on research) helps undergraduates by making them in demand when they graduate.

Teaching effectiveness is a necessity, and response to the Knapper Report indicated faculty interest in it, said Dianne Kieren, Associate Vice-President (Academic), pointing out that teaching is an important part of the leadership role of her office. "There is a widespread perspective that teaching is not valued as highly as research and that is a concern to us."

A wide range of teaching techniques is being used on campus, but "student learning needs to be emphasized," Dr. Kieren said. "We should concentrate on developing cognitive skills in students, and orient them so that they are prepared for a changed responsibility."

Lois Stanford (Chair, Linguistics) said that "Teaching is one of the things I enjoy most," and her favored method of instruction is the lecture.

But as a direct result of the

Knapper Report's recommendation for greater use of innovative methods of teaching, Dr. Stanford restructured one of her courses, "cut the amount of lecture time in half (but I simply talked twice as fast), and in the other half substituted a set of short, critical papers the students would write."

As a result of the change, Dr. Stanford reported "some important lessons have been learned on both sides": students need help in learning how to learn if non-traditional teaching methods are used, and the teacher must have confidence that students can learn on their own.

"It would have been helpful to pilot the course first," Dr. Stanford added. "I should have taken advantage of the collegial support there is on campus and got some advice."

The fifth panelist, Jim Forrest (English), entered a plea on behalf of lecturing, the traditional teaching method.

"There is far too much condemnation of this method, as if there is something inherently wrong with it," he said.

"A well-constructed lecture, delivered with sensitivity, can foster cognitive skills as effectively as any other method."

"The intonation of the lecturing voice itself—exploratory, questioning, proffering alternatives—can indicate that a judgment is being invited from the

Continued on page four

## Tupper Edges Evans in SU Presidential Race

David Tupper will lead the University of Alberta Students' Union during the year beginning 1 May.

Tupper, with 2,587 votes, defeated Mike Evans who attracted 2,145 votes. Karen Hudson, who ran as an independent candidate, made a strong showing with 1,684 votes.

About 28 percent of the eligible voters cast their ballots 9 and 10 March. The figure is "about normal," said Chief Returning Officer Michael Hunter.

Tupper, a third-year student in Political Science, will have as his executive: Suresh Mustapha, Vice-President (Academic); Wade Deisman, Vice-President (External); and Peter Chu, Vice-President (Finance and Administration). Steve Twible will represent the

Students' Union on the University Board of Governors.

The Vice-President (Internal) post was very much in doubt as *Folio* went to press. Melinda Bang garnered 3,105 votes; Aruna D'Souza was the choice of 3,104 voters.

Ah, politics.□

### Switch Speakers

Last week's *Folio* reported on the Library's barcoding project ("Library Starts Barcoding Project," page two). The statement in that article reading "We will, of course, ensure that disruption is kept to a minimum and, as far as possible, avoid exam study times" should have been attributed to Loretta Klarenbach rather than Jenny O'Shea.□



U of A Public Affairs

### Strong-arm Tactics

During the week of 20 to 23 March, Campus Recreation will host 1000 Calorie Week as an observance of National Nutrition Month. Everyone is encouraged to follow President Horowitz's example (Lori Walsh is pictured with him) and frequent the Van Vliet Centre to enjoy the benefits of Campus Recreation's user-friendly displays and physical activity events.



## Profile: Jean Adams, Supervisor, Development Office

She's used to processing millions of dollars at a time for the University. However, occasionally, Jean Adams admits, some donations can still catch her by surprise. "On the day before New Year's Eve, I stayed late and somebody walked in with a cheque for \$333,333.33, exactly one third of a million dollars. It was written on a personal bank account and it kind of floored me."

Actually, the timing of the donation wasn't all that unusual, Adams notes. She says that late in December, to be eligible for a tax receipt before year end, many people, some "almost running down the hall at 4:30 p.m.," come in, asking if it's too late to give her their money.

She's handled personal cheques for \$500,000 and even one for a cool \$1 million ("not cheques you normally see every day . . . personal cheques of that amount never fail to amaze me.")

For all donations to the University, Adams and Development Office staff set up accounts, deposit the funds and prepare charitable tax receipts ("We're the only office that can issue them") averaging \$15 million to \$20 million a year. They also fill

out the paperwork and liaise with the provincial government for matching funds. Under the last program (new program details haven't been announced), "everything was eligible as long as no benefit accrued to the donor," explains Adams, estimating that about \$40 million has been generated over the last two years.

As much as she loves accounting and working with numbers (she's known for her thoroughness and skill), Adams says she also likes working with people. A major part of her job involves telephone contact. "I answer a lot of questions for researchers about matching funds," she says, adding "it usually takes a long time before we get word back" about applications. But then, she usually gets to be the bearer of glad tidings. "I love it when a cheque comes in . . . I almost feel like I personally gave them the money," she laughs.

She also takes calls from potential donors, often explaining the University's endowment policy. Conversations are quite interesting, she reveals. "You never really know, when they call out of the

*Continued on page five*



*Cheques and balances dominate Jean Adams' workday.*

U of A Public Affairs

### Professor as Teacher

*Continued from page three*  
student." Variation of the rate, volume, pitch can also draw students' attention to central ideas—and so can pregnant and significant pauses.

Regarding the comparative rewards for teaching and research, Dr. Forrest suggested that the results of research, being more visible, are more measurable and therefore are given more weight.

"The effects of teaching are to be found only in the effects on the minds and hearts of students themselves. But an awareness of that is a cause for celebration and satisfaction, and that I think is singular compensation enough," he said.

Questions raised following the panel presentation included the problem for students of professors (particularly teaching assistants) whose first language is not English and who cannot make themselves understood to the students.

The panel advised that students first approach the teacher with their concerns. Failing a response, the procedure is to the department Chair, then the Dean, and finally the Vice-President (Academic) until a response has been obtained. Students need to take responsibility and voice their concerns to the

appropriate authority, panelists agreed.

Explaining the assignment of teaching assistantships, Dr. Bertie said his department accepts into graduate school only those to whom it can offer a teaching assignment, but a person's teaching capabilities are not examined before a post is offered.

In the English Department, compulsory courses are arranged for graduate teaching assistants, Dr. Forrest said, and they are monitored very closely.

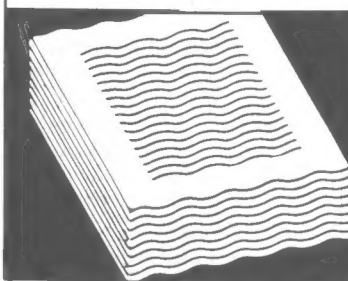
In response to Mr. Vethan's early experiences of intimidation and isolation, Myer Horowitz reflected on his own undergraduate experience at three institutions.

The experience he felt most positive about, he said, was at the institution where all students new to the school were part of "advisory groups" — 12 to 15 students and a faculty member—that eased students' adjustment to the new environment.

Given the current numbers of around 6,000 students new to the campus each year, President Horowitz suggested that perhaps 400 of his colleagues might be prepared to volunteer for similar advisory groups.

Some students don't need such help, but for those who do, it can make all the difference, Dr. Horowitz said. □

## Currents



### General Faculties Council

GFC's next meeting is scheduled for **Monday, 20 March, at 2 p.m.** in the University Hall Council Chamber.

1. Approval of the Agenda
2. Approval of the Minutes of 27 February 1989
3. Question Period
4. New Members of GFC 1989-90
- Reports*
5. Executive Committee Report
- 5.1 Executive Committee Minutes of 6 March 1989
6. Reports of the Board of Governors
7. Report of the Nominating Committee
8. GFC Facilities Development Committee (FDC): Oral Report
9. GFC Academic Development Committee (ADC): Oral Report
10. GFC Planning and Priorities Committee (PPC): Oral Report
11. University Research Policy Committee (URPC): Oral Report

#### *New Business*

12. Writing Competence of Students: Resolution from a University of Alberta/Alberta Education Joint Committee and Recommendations from the GFC Academic Development Committee (ADC)
13. Quota Reports: Reports of the Senate Committee of Lay Observers of the Admissions Process in Quota Programs, 1988 Admissions and Information on Admissions to Quota Programs for 1988-89

14. AIDS Guidelines: Recommendations from the President's Occupational Health and Safety Committee (OHSC)
15. University Computing Advisory Group (UCAG): Annual Report 1988-89
16. Film Studies: Faculty of Arts Proposal and Recommendation from the GFC Planning and Priorities Committee (PPC)
17. Teaching: Proposal from the Students' Union for Amendment of the Faculty Agreement
- For Information*
18. Withdrawal Rates of Transfer Students: Response from the Registrar to Question Raised at GFC
19. Other Business

For information concerning this agenda, members of the University community may telephone the Secretary to GFC at 492-5430.

### Walk Into Show Room Prepared

The Administrative and Professional Officer Council invites University staff to attend a presentation on "The Intelligent Way to Purchase a New Vehicle."

Heather McSporran-Heil, president of Morel Bay Auto Brokers, will speak on 22 March, 3:30 to 5:30 p.m., in 129 Education South.

### Freeman Reception Rescheduled

The reception for Peter Freeman which had to be postponed because of the recent blizzard has been rescheduled for 23 March, 3 to 5 p.m., at the Faculty Club. All of his friends and colleagues are invited to attend.

Anyone still wishing to contribute to a gift may send cash or a cheque to Marlene Sherban, Financial System Analysis, Cameron Library.

### Book Sale

The Library system is holding a book sale on 29 and 30 March. The sale will take place from 9 a.m. to 4 p.m. in the Norma Freifield Reserve Reading Room, 1-24 Cameron Library.

## Family Resource Management Program Benefits From Deacon's Counsel

Family resource management isn't just about money, stresses Ruth Deacon, a Distinguished Visitor in the Department of Family Studies. For families, "It isn't always 'the bottom line', it's quality of life that counts," she says.

Dr. Deacon, Dean Emeritus of the College of Home Economics of Iowa State University and Adjunct Professor of the Department of Family Resource Management in the College of Home Economics at Ohio State, is assisting Janet Fast, recently appointed by Family Studies to lead their program in Family Resource Management.

Resources, in this context, explains Dr. Deacon, "include all the human resources, skills, abilities, and knowledge that relate to areas of management as well as time and money." Recently, for example, as more women work outside the home, time constraints are critical and that is an important area of resource management to consider.

Family resource management is a key concept in family studies, states Dr. Deacon. It involves a process within the family to use resources in relation to the family's interests, needs and goals — and managerial concepts to do that effectively. "When it breaks down, it can lead to conflict and problems," she advises.

"There is considerable evidence that some of the problems families confront have to do with problems in feeling that they don't have enough resources to accomplish what they desire." Many family problems are not just differences in perspective, she asserts, they also arise from differences in managing resources.

Family resource management is not a new approach, says Professor Deacon, but one that is resurging. As families confront social and economic changes, it is becoming more important to learn to manage limited resources effectively.

In a program of Family Studies, it can be used as a fundamental decision-making process and an integrative concept for many questions and areas. "It is equally applicable in terms of identifying problems and bringing information bear in relation to resources."

An internationally recognized expert in the field, Dr. Deacon is advising and consulting with faculty in applying the approach to their specific specialties.

With Francille Firebaugh, Dr. Deacon co-authored *Family*



Ruth Deacon is here until 27 March.

*Resource Management: Principles and Application*, to put the process in a context of systems, to expand on the managerial situation and give it focus and continuity beyond "just solving a problem and making decisions." She suggests her systems model enables people to see that decisions are in continuous interaction and take into account both external and internal influences on the family.

"In a systems context," she explains, "there is clear input of family goals and reference to outside expectations. From that goal orientation, management is a planning process which includes clarification of goals, setting standards, sequences relating to the particular problem and identifying resource uses that apply . . . and implementation to carry through on the plan with adjustments."

Dr. Deacon says she's been challenged by the idea of developing this model since she was an undergraduate. "I've never found it boring, it's always been an area of interest." As an extension worker assisting rural families, she found she needed some kind of system to help them deal with problems more effectively.

She emphasizes that her model encompasses broad concepts of families and lifestyles and recognizes that they interact with other sectors of society in complex ways. Sometimes families experience problems and need help in making effective decisions because they have fewer resources; sometimes they have difficulties due to increased resources, she notes. She believes that renewed interest in family resource management arises from the increasing complexities of family needs and greater awareness of those needs. "We have to be astute in addressing and understanding the variety of situations that need attention," she concludes. □

## Adams

*Continued from page four*  
blue, whether it's \$100 or \$100,000 they want to give."

Certain times are more hectic than others. In February, for example, the government released \$14 million in matching funds "that had to be dispersed over a lot of accounts; there's a lot of paperwork involved," she explains. And then there was 14 July 1988. Although Adams had been reassured that the matching program was continuing, the government suddenly announced a freeze and Adams was informed late that afternoon that the deadline was 4:30 p.m. that very day. Immediately, she made up applications for the largest donations and they were driven downtown. She then worked through the weekend, running computer programs to complete everything outstanding (we don't normally submit applications on a daily basis, she explains, and we have about a month's worth of donations, about

\$2 million, in process). Monday she was ready. "Our photocopiers were going crazy," she recalls, but all the applications were submitted to the government. The story had a happy ending since "they agreed to pay all of them out," she sighs.

The history of her job is one of clearing the decks. She started as an accounts clerk, hired to receipt donations, in February 1983, several months after the University's 75th anniversary fund-raising campaign had begun. "Not one cheque had been deposited. There was a desk-full, drawers-full of cheques and letters of intent . . . I've been busy ever since."

Born in Scotland, Adams came to Canada when she was 18, the "pioneer" for her parents and siblings who followed later.

Adams feels totally content with her move to this side of the Atlantic. "I've never had one homesick day, never wanted to go back to Scotland to live," she confides. □

## Talks

### International Centre

20 March, noon. "In Our Own Backyard—" a 24-minute video which looks at how members of the Nanosee Conversion Campaign, a peace group, are opposing the use of British Columbia's west coast by the U.S. Navy.  
21 March, 12:30 p.m. Neil Scotten will read some of his newest work.  
22 March, noon. Carolyn Fewkes, "A Nanny in France: The Au Pair Program."  
23 March, 12:30 p.m. Edith and Jerome Taylor, "Culture, Religion and Village Life in Bhutan."

### CITL

16 March, 3 p.m. Bob Mulcahy and David Peat, "Teaching Learning/Thinking Skills to Adults." TBW-2 Tory Breezeway.  
20 March, 3 p.m. Peter Apedaile, "Food Security: Self Sufficiency or Trade." TBW-2 Tory Breezeway.  
21 March, 12:30 p.m. Graham J. Fishburne, "The Importance of Effective Communication in Teaching." TBW-2 Tory Breezeway.  
21 March, 3 p.m. Mary Mahoney-Robson, "Manuscript to Book: The Publishing Process." TBW-2 Tory Breezeway.  
22 March, 3:30 p.m. James F. Forrest, "Milton's Sonnet on His Blindness." TBW-2 Tory Breezeway.

### Rural Economy

16 March, 3:15 p.m. Gordon Rostoker, "Publish and/or Perish: An Insider's Guide to Publishing in Scientific Journals." 519 General Services Building.  
20 March, 3:15 p.m. Gurmit Sandhu, "Economic Structural Analysis of the Alberta Agricultural Sector." 519 General Services Building.

### Women's Studies, History, Religious Studies and Sociology

16 March, 3:30 p.m. Maureen Ursenbach Beecher, associate professor of English

and research historian, Joseph Fielding Smith Institute for Church History, Brigham Young University, "The Role of Women in the Origins and Growth of Mormonism." 1-93 Tory Building.

### Nursing, Anthropology and Physiology

16 March, 3:30 p.m. Dr. Wei Bei-hai, director, Beijing Research Institute of Traditional Chinese Medicine, Beijing, China, "Regional and Ethnic Differences in Physical and Mental Health in China." 14-6 Tory Building.  
22 March, 8 p.m. Dr. Wei and Steven Aung, "Combining the Best of Traditional and Western Medicine: The Chinese Approach. B-2 Tory Lecture Theatre.  
23 March, 3:30 p.m. Dr. Wei, "The Fate of the Barefoot Doctor Program in China: Possible Lessons for Health Care Delivery in the Canadian North." 14-6 Tory Building.

### Entomology

23 March, 4 p.m. A.T. Whitehead, Department of Zoology, Brigham Young University, Provo, Utah, "Electroantennograms of Mountain Pine Beetles." TBW-1 Tory Breezeway.

### English

16 March, 4 p.m. R.J.S. Grant, "Pictish and Anglo-Saxon Confrontations: The Battle of Nechtansmere Reconsidered." L-3 Humanities Centre.  
21 March, 12:30 p.m. Steven Connor, London, "Postmodernism, Value and Ethical Possibility." L-3 Humanities Centre.  
22 March, 4 p.m. Professor Connor, "Language and Power in Dickens' Later Novels." L-3 Humanities Centre.  
23 March, 12:30 p.m. Karen MacCormack will read from her poetry. L-3 Humanities Centre.

### Art and Design

16 March, 5 p.m. Denise Leclerc, National Gallery of Canada, "The Crisis of Abstraction in Canada: The Fifties." 2-20 Fine Arts Building.

## Sociology

17 March, 10 a.m. Bob Sass, director, Labour Studies, University of Saskatchewan, "Occupational Health and Safety: A Public Policy Perspective." Co-sponsors: Organizational Analysis and Sociology. 4-16 Business Building.

## Area Studies Committee Africa and South Asia

17 March, noon. Gita Das, "Modern Oriya Literature." 14-6 Tory Building.

## School of Native Studies

17 March, noon. Thomas R. Berger, professor of Law, UBC, and a former member of the BC Supreme court, "Native Peoples: Their Rendezvous With History." Co-sponsors: Law, Boreal Institute of Northern Studies, History, and Educational Foundations. B-1 Tory Lecture Theatre.

## Catholic Campus Ministry

17 March, 12:10 p.m. Celebration of the Eucharist with Archbishop MacNeil. St. Joseph's College Chapel.  
17 March, 2 p.m. Tom Dailey, "Can Patients Refuse Treatment?" Faculty Lounge, St. Joseph's College.

## Plant Science

17 March, 12:30 p.m. M. Schellenberg, "Competition Within Mixed Pasture Swards." 1-06 Agriculture-Forestry Centre.

## East Asian Languages and Literatures

17 March, 2 p.m. Chinese Speech Contest. L-2 Humanities Centre.

## Physics

17 March, 2 p.m. G. Rowlands, University of Wisconsin, "Modern Theories of Weak Turbulence." V-121 Physics Building.  
31 March, 2 p.m. G. Schmidt, Stevens Institute of Technology, "Deterministic Chaos; An Introduction." V-121 Physics Building.

## Animal Science

17 March, 3 p.m. Marcus Yu, "Some Alternatives to the Use of Chemicals in Farming." 1-13 Agriculture-Forestry Centre.

## Zoology

17 March, 3:30 p.m. Linda Fedigan, "Lifetime Reproductive Success in Female Japanese Macaques." M-149 Biological Sciences Centre.  
31 March, 3:30 p.m. Robin Liley, Department of Zoology, University of British Columbia, "Behavioral Endocrinology of Teleosts." M-149 Biological Sciences Centre.

## Canadian Institute of Ukrainian Studies

17 March, 7:30 p.m. Bohdan Kordan, Department of Social Sciences, Grant MacEwan Community College, "Internment of Ukrainians in Canada During World War I: The Castle Mountain Experience." Heritage Lounge, Athabasca Hall.

## Law

18 March, 9:30 a.m. Saturday Morning at the Law School—"Wills and Estates." Law Centre.

## Music

18 March, 10:30 a.m. Graduate Music Student Symposium Lecture. Richard Troeger, "Bach's Keyboard Textures and the Goldberg Variations." Presented in co-operation with the University of Calgary. 1-29 Fine Arts Building.

## Boreal Institute and Zoology

20 March, noon. Paul Paquet, "Behavioural Ecology of Wolves and Coyotes." B-105 Biological Sciences Centre.

## Political Science

20 March, noon. Steven J. Rosenstone, University of Michigan, permanent investigator, National Election Study, "Has America Moved to the Right?" Co-sponsor: Consulate of the United States in Calgary. 10-4 Tory Building.

## United Church Campus Ministry

20 March, noon. George Hermanson, director, Five Oaks Center for Transformation of Self and World, Paris, Ontario, "Science and Religion in a Post-Modern World." 270A Students' Union Building.  
21 March, 7:30 p.m. George Hermanson, "Faith and Academia: Plurality and Ambiguity in the Quest for Human Transformation." St. Stephen's College Lounge.

## Agricultural Engineering

20 March, 3 p.m. Gale Holloway, manager, Electrical/Electronic Engineering, Case IH, Agricultural Equipment and Component Engineering Centre, Hinsdale, Illinois, "The Environment of Electronics in Agricultural Equipment." 1-30 Agriculture-Forestry Centre.

## Women's Studies Program

20 March, 4 p.m. Lynda Nead, Department of History of Art, Birkbeck College, University of London, "Getting Down to Basics: Art History and the Female Nude." 2-20 Fine Arts Building.  
21 March, 3:30 p.m. Dr. Nead, "Reworking the Tradition: Feminist Representations of the Female Body." 2-20 Fine Arts Building.  
22 March, 4 p.m. Dr. Nead, "The Language of Infection: Disease and Deviancy in Victorian Art." 2-20 Fine Arts Building.

## Geology

21 March, 11 a.m. Steve Scott, University of Toronto, "Deep Sea Massive Sulfides." 1-04 Earth Sciences Building.

## Soil Science

21 March, 12:30 p.m. C.A. Campbell, head, Soils and Environment Section, Agriculture Canada, Swift Current, Saskatchewan, "Crop Rotations on the Prairies." 2-36 Earth Sciences Building.  
23 March, 12:30 p.m. M. Zhang, "Seed P Concentration and its Influence on Seedling Growth and Yield." 2-36 Earth Sciences Building.

## Boreal Institute

21 March, 12:30 p.m. Linda Schulz, "Achieving Equilibrium in a Changing Environment: Aboriginal Masks of

Alaskan Eskimos and Eastern Arctic Inuit." 14-6 Tory Building.  
23 March, 12:30 p.m. Patrick Moore, Yukon Native Languages Program, "From Ethnography to Ethnology: The Importance of Cross-Cultural Comparison in Studying the Tea-Dance of Northern Alberta." 14-6 Tory Building.  
28 March, 12:30 p.m. Dennis Wall, Alberta Education, "Decision Making in Northland School Division in the Context of Alberta Government Native Policy." 14-6 Tory Building.

## Faculty of Education

21 March, 3:30 p.m. William Taylor, vice-chancellor, Hull University, Hull, United Kingdom, "Current Developments in Teacher Education in the United Kingdom and Possibilities for the Future." 2-115 Education North.

## Alberta Heritage Foundation for Medical Research

21 March, 4 p.m. Richard Mosser, postdoctoral fellow, Department of Biochemistry, Molecular Biology, and Cell Biology, Northwestern University at Evanston, "DNA Protein Interactions in the Human HSP70 Promoter." Presented by Anatomy and Cell Biology. 5-10 Medical Sciences Building.  
28 March, 4 p.m. David Morse, postdoctoral fellow, The Biological Laboratories, Harvard University, "Control Over Bioluminescence in the Marine Algae *Gonyaulax*." Presented by Anatomy and Cell Biology. 5-10 Medical Sciences Building.

## Forest Science

22 March, noon. V.J. Lieffers, "Peatland Forestry Research at the Department of Forest Science." 4-1 Mechanical Engineering Building.  
29 March, noon. D.M. Bennett, R.P.F. Forest Engineering Research Institute of Canada, Western Region, "Latest Technology in Forest Harvesting—A Review of Current Feric Project Work." 4-1 Mechanical Engineering Building.

## Community Medicine

22 March, noon. D. Adcock, U.S. Public Health Service, "Mammography: Business, Preventive Medicine, Policy." 13-114 Clinical Sciences Building.

## Geography

22 March, 3 p.m. Jim Burns, Department of Natural History, Provincial Museum of Alberta, "Caves, Cavers, and Cave Critters: One View of the Quaternary Fossil Record." 3-36 Tory Building.

## Anatomy and Cell Biology

22 March, 4 p.m. Lisa Stockbridge, "Mechanotransduction by Stretch-Activated Ion Channels." 5-10 Medical Sciences Building.

## Alberta Heritage Foundation for Medical Research and Genetics

22 March, 4 p.m. Vincent Giguère, Research Institute, Hospital for Sick Children, Toronto, "Molecular Biology of the Retinoic Acid Receptor." M-149 Biological Sciences Centre.

## Faculty of Arts

23 March, noon. Norman Yates, "The Changing Centre: Style or Substance?" Stollery Centre, Business Building.

## Literary Theory Lecture Series

28 March, 4 p.m. Donald Bruce, "Literature, Models and Field Theories: The Search for an Elusive Unity." 5-20 Humanities Centre.

## Applied Mathematics Institute

29 March, 4 p.m. W. Israel, "Black Holes: The Inside Story." 657 CAB.

## Geology and the P.S. Warren Geological Society

30 March, 11 a.m. Peter Meehan, Husky Oil, "Amauligak—From Discovery to Delineation." 1-04 Earth Sciences Building.

## Economics

30 March, 2 p.m. David Foot, University of Toronto, "The Inevitable Surprises: Demographic Change and Public Policy in Canada." TBW-2 Tory Building.

## Comparative Literature

30 March, 4 p.m. Didiez Coste, San Diego State University, "Narrative and the Struggle for Consent." 326 Arts Building.  
31 March, 10 a.m. Professor Coste, "Narrative vs. Lyric in Modern Poetry with Special Reference to Wallace Stevens." 326 Arts Building.

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## The Arts

## Exhibitions FAB Gallery

Until 26 March. "Pressing Matters—" an exhibition by senior printmaking students.  
Until 26 March. Anthony Caro, "Exotic Steel: The Influence of Hindu Art on Edmonton Steel Sculpture."  
Until 26 March. "Norman Yates: A Celebration—" a selection of paintings executed by Professor Yates during his tenure at the University of Alberta.

## Manulife Place

Until 31 March. "B.F.A. Graduating Exhibition 1989." 6th Floor, 10180 101 Street.

## McMullen Gallery

Until 2 April. "Japan in Pictures." Call for gallery hours: 492-4211 or 492-8428.

## Music

17 March, 8 p.m. Collegium Musicum Concert—Marnie Giesbrecht, director. Music from six centuries—Medieval to Baroque. Admission: \$5/adults; \$3/students and seniors.  
22 March, 8 p.m. Reel Music Concert—a program of electronic music composed by faculty and students.  
28 March, 8 p.m. Stage Band Concert—Neil Corlett, director.

Admission: \$5/adults; \$3/students and seniors.  
 30 March, 8 p.m. The Chamber Winds Concert—Malcolm Forsyth, director.  
 Admission: \$5/adults; \$3/students and seniors.  
 All events in Convocation Hall.

## 15 Germanic Languages

22 March, 7:30 p.m. "Schwestern" (1979).  
 141 Arts Building.

## Special Events Program

19 March. Family Fun Sunday. Pavilion and West Pool. Entry deadline: 17 March, noon. Pavilion and West Pool.

## Positions

The University of Alberta is committed to the principle of equity in employment.

In accordance with Canadian Immigration requirements, these advertisements are directed to Canadian citizens and permanent residents.

## Academic

### Administrative Professional Officer, Department of Civil Engineering

The Department of Civil Engineering invites applications for the position of Administrative Professional Officer. The Department is a teaching and research unit within the Faculty of Engineering. Reporting directly to the Chairman, the Administrative Professional Officer is accountable for the efficient business management of the Department, including budget, personnel management, space, timetabling and student registration, and acts as a resource person on administrative matters. The Administrative Professional Officer acts as secretary to some departmental committees.

The position currently has a salary range of \$27,912 to \$41,880 per annum.

The anticipated date of appointment is 17 April 1989. The deadline for receipt of applications is 28 March 1989.

Applications, including curriculum vitae and the names of three referees, should be forwarded to: Professor J.G. MacGregor, Chair, Department of Civil Engineering, 220 Civil-Electrical Engineering Building, University of Alberta, Edmonton, Alberta T6G 2G7.

### Tenure-Track Position, Philosophy of Education, Department of Educational Foundations

The Department of Educational Foundations invites applications for a tenure-track position in the field of Philosophy of Education at the Assistant Professor level effective 1 July or 1 September 1989 (subject to budgetary provisions). Current salary range is \$33,144 to \$47,280 per annum. Applicants must have a completed PhD degree and an active research and publication record.

The candidate selected will be expected to teach undergraduate/graduate courses in

Philosophy of Education, preferably in social and moral philosophy, and to be interested in helping with the following activities: (a) the development of an MEd in Moral and Religious Education mainly for practicing teachers, (b) involvement in studies in the philosophy as it relates to issues in inter-cultural education. A portion of the successful candidate's assignment will include involvement in school-based collaborative activities.

Applicants should forward the following materials:

1. A formal letter of application.
2. An indication of fields of current academic interests.
3. A detailed curriculum vitae.
4. Three letters of reference.

These materials should be directed to: Dr. M. Kazim Bacchus, Chair, Department of Educational Foundations, Faculty of Education, 5-109 Education North, University of Alberta, Edmonton, Alberta T6G 2G5.

The closing date for applications is 15 May 1989; all documentary material must have been received by that date.

## Support Staff

To obtain further information on the following positions, please contact Personnel Services and Staff Relations, 2-40 Assiniboia Hall, telephone 492-5201. Due to publication lead time and the fact that positions are filled on an ongoing basis, these vacancies cannot be guaranteed beyond 10 March. For a more up-to-date listing, please consult the weekly Employment Opportunities Bulletin and/or the postings in PSSR.

Clerk Steno II (Trust), Computer Engineering, (\$1,276-\$1,584)  
 Clerk Typist II (Trust), Physical Education and Sport Studies (Fitness Unit), (\$1,276-\$1,584)  
 Clerk Steno III (Part-time), Health Sciences Laboratory Animal Services, (\$711-\$893) (prorated)  
 Clerk Typist III, English, (\$1,421-\$1,785)  
 Clerk Typist III, Personnel Services and Staff Relations, (\$1,421-\$1,785)  
 Library Clerk III, Faculté Saint-Jean, (\$1,421-\$1,785)  
 Student Records Processing Clerk II (Term to 5 October 1989), Rehabilitation Medicine, (\$1,584-\$2,023)  
 Secretary, Centre for Advanced Study in Theoretical Psychology, (\$1,584-\$2,023)  
 Administrative Clerk, Personnel Services and Staff Relations, (\$1,584-\$2,023)  
 Medical Steno (Trust), Medicine (Division of Infectious Diseases), (\$1,584-\$2,023)  
 Office Services Senior Clerk (Term to 1 January 1990), Forest Science, (\$1,785-\$2,297)  
 Assistant Buyer, Materials Management, (\$1,785-\$2,297)  
 Laboratory Assistant II, Provincial Laboratory, (\$1,276-\$1,584)  
 Technician I (Hourly/Trust), Rehabilitation Medicine, (\$10.83-\$13.91/hour)  
 Technician I (Trust/Term to 1 April 1991), Psychiatry, (\$1,643-\$2,109)  
 Biology Technician II/Technologist I (Trust), Genetics, (\$1,863-\$2,611)  
 Engineering Technologist II, Physical Plant - Plant Operations, (\$1,939-\$2,504)  
 Biology Technologist I (Trust), Genetics, (\$2,023-\$2,611)  
 Technologist I (Split-funded), Zoology, (\$2,023-\$2,611)  
 Laboratory Technologist I, Provincial Laboratory, (\$2,023-\$2,611)  
 Maintenance Worker II, Physical Plant, (\$2,023-\$2,611)  
 Nurse (Trust), Medicine, (\$2,109-\$2,730)  
 Electronics Technician III, Physical Plant - Energy Management, (\$2,200-\$2,851)

For vacant Library positions, telephone 492-3790.

Library Clerk I, Library (Administration), (\$1,188-\$1,469)

## Advertisements

### Accommodations available

Rent - Grandview. 2,300 sq. ft. split-level. Quiet crescent, pie-shaped lot. September 1989 to April 1990. Appliances, jacuzzi, microwave. \$1,350/month. Western Relocation Services Limited, 438-1044.  
 Rent - Lendrum. Three-bedroom house. Finished basement, partially furnished. Available 1 July 1989 for 14 months. Single garage. Western Relocation Services Limited, 438-1044.  
 Rent - Riverdale. Sparkling, new, two-storey, two-bedroom home. March 1989. \$1,200/month. Western Relocation Services Limited, 438-1044.  
 Rent - Country living downtown! Unique setting, near river, one-bedroom, furnished home. May 1989. Two-year lease preferred. \$900/month. Western Relocation Services Limited, 438-1044.  
 Sale - Riverbend. 4,600 sq. ft., deluxe, brick home. Post and beam construction, all appliances, drapes. Large lot, river valley view. Mature trees. \$429,000. Drive by 14316 63 Ave. 436-3179 for appointment.  
 Rent - Old Riverbend. 1 September-summer 1990. Four-bedroom, 2 1/2-bath, two-storey home. Furnished. \$950. 435-5427, 492-5860.  
 Rent - Glenora. July 1989-June 1990. Charming, cozy, renovated, two-bedroom bungalow. No smokers or pets. References please. 455-0620 evenings.  
 Rent - Fully-furnished, one-bedroom house. 1 May-31 August. \$350/month. (Conditions), 489-4190.  
 Sale - University area. \$98,500. Nicely upgraded, three-bedroom semi, comfortable basement suite, hardwood floors. Ed Lastiwka, 437-7480, 437-4984, Royal LePage Realty.  
 Rent - \$1,400. Toronto (Cabbagetown) sublet April-July. Three bedrooms, 1 1/2 baths, fully equipped and furnished. References please. R. Desousa, Philosophy, University of Toronto. (416) 978-6789, 978-6987. (Late night OK) EMAIL: SOUSA@UTOREPAS.  
 Rent - Riverbend. Executive, luxurious, large, four-bedroom, two-storey house. Fully furnished, 2 1/2 baths, many extras. Near University, for two years, beginning July 1989. \$1,300/month. 437-1978.  
 Rent - Greenfield. 1 August 1989-30 June 1990. Fully-furnished, four-bedroom bungalow, garage. Close to French immersion elementary schools,

15-minute bus to University. \$800 plus utilities. 435-5488.

Sale - McKernan, semi-bungalow, three bedrooms plus den, beautifully renovated, natural gas bar-be-que included. Asking \$99,500. 488-9553, 437-7324 after 5 p.m.

Visiting Toronto? Bed and breakfast in our restored home, minutes to downtown. Swim and steam included. Rates from \$40. Ashleigh Heritage Home. (416) 535-4000.

Rent - Blue Quill. Four-bedroom, executive home, 2,200'. Backs onto park. July 1989 to summer 1990. Partly furnished, \$1,000. Catherine, 435-9530.

Sale - Owner. Old Riverbend, 2,066 sq. ft., four-level split, family room, fireplace, patio doors, deck, four bedrooms plus one, central vacuum, dishwasher, double detached garage, mature landscaping. \$144,900. 434-7802.

Share - Charming house to share in Groat Estates, reasonable rent. Eight minutes from University area. Available 1 April. Phone Finola, 452-9366.

Rent - University/Garneau area. Fully furnished, newer, three-bedroom bi-level. Garage, sundeck. Prefer non-smoking. 1 May-1 September. 998-3988.

Sale - Near University, two storey, remodelled. Loft over living room,

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Non-smoking. Rent \$275. Available 1 April-15 October. 424-1676, 492-7664.

Sale - University/Belgravia. Spectacular, contemporary, two storey, three bedroom plus den. Enclosed sunroom, beautiful condition. Asking \$158,000. Ed Lastiwka, 437-7480, 437-4984, Royal LePage Realty.

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For an up-to-date list of homes and properties and/or a free market evaluation, please call John Weitzel, 488-2000. NRS National 2000 Realty.

#### Accommodations wanted

Architect's family, presently housesitting for study leave, interested in providing this service for 1-2 years. University area, commencing anytime-September 1989. 439-1872 after 6 p.m.

Professional housesitter will care for your home for four months or longer, beginning September or October. References. 435-2453.

Professor requires 3- or 4-bedroom house for one year starting this summer. 492-7237.

Wanted to rent - House or apartment for visiting professor, wife, dog; from Halifax. Needed for three months (May, June, July 1989). Please phone (902) 477-3160 (after 3 p.m. MST).

Physiotherapist seeks house to sit May-September, will look after pets, plants. 488-5716.

Scottish physician requires furnished accommodation 15 April-31 August. One bedroom, living room with sofa bed, kitchen. J Waters, 427-5263 (bus), 962-0517 evenings.

#### Goods for sale

Cash paid for appliances, 432-0272.

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### Department of Statistics and Applied Probability

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or UBC Creative Arts Program, Centre for Continuing Education, The University of British Columbia, 5997 Iona Drive, Vancouver, B.C.

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